Write your name, student number, study program and the year when you started your studies.

- 1. Define the following concepts in short. (4p)
  - a) Parser
  - b) Meta language
  - c) Attribute
  - d) Namespace
- 2. Define briefly an XML tree (node types and connections between tree and a XML document). (6p)
- 3. Define well formed XML document and valid XML document. What is the difference between these two? Is well formed XML document always valid? How about vice versa? (3p)
- 4. Give four examples about XML based description languages and explain briefly what they are for. (4p)
- 5. Compare DOM and SAX API's (application programming interfaces). How do the DOM and the SAX work? (3p)
- 6. Essay: Ponder the future of XML based description languages from the viewpoint of linked data, machine understandability and the Semantic Web. (6p)